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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,430	11/19/2003	Michael K. McInerney	COE-566	5350
30046	7590	03/16/2006	EXAMINER	
HUMPHREYS ENGINEER CENTER SUPPORT ACTIVITY ATTN: CEHEC-OC 7701 TELEGRAPH ROAD ALEXANDRIA, VA 22315-3860			SPAHN, GAY	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/715,430		MCINERNEY ET AL.	
	Examiner		Art Unit	
	Gay Ann Spahn		3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 10,11 and 13-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

In response to Applicants' comment that the "Examiner may have mistakenly included the phrase 'there being no allowable generic or linking claim' under the comments for Claims 16-35 and it should have been under comments to Claims 10, 11, and 13-15," the examiner notes that the phrase "there being no allowable generic or linking claim" should have been in the statement withdrawing for both claims 16-35 and claims 10, 11, and 13-15. The phrase is part of a form paragraph that examiners are given for their use in withdrawing claims in response to both an election from a restriction requirement and an election from an election of species requirement (i.e., the withdrawal of claims 16-35 (non-elected *invention*) being in response to an election from a restriction requirement and the withdrawal of claims 10, 11, and 13-15 (non-elected *species*) being in response to an election from an election of species requirement).

Claim Objections

Claim 1 is objected to because of the following informalities:

(1) claim 1, line 22, the recitation of "the step of emplacing said panels" should be change to --the step of placing said panels-- for proper antecedent basis (see line 11-14) so there is no confusion with the step of emplacing said topmost section recited in lines 18-21.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 3-5, the recitation of “a porous topmost section emplaced on top of said barrier, said topmost section being of the same class of porous material as the porous material immediately below said barrier” is vague, indefinite, and confusing for the following two reasons.

First, the recitation of “being of the same class of porous material” is not understood. The examiner notes that it has not been defined in the specification what “being of the same class of porous material” means. One of ordinary skill in the art could find two porous materials to be of the same class for different reasons (i.e., same class with respect to degree of hardness, or the same class with respect to degree of porosity, etc.). If Applicant is trying to claim that both the top and bottom layers above and below the barrier, respectively, is the same porous material (e.g., concrete), then he should clearly recite this.

Second, the recitation of “the porous material immediately below said barrier” is vague, indefinite, and confusing as lacking antecedent basis because although the

Art Unit: 3673

barrier has been recited to be "embedded within porous material" in line 2, this does not establish that there is porous material immediately below said barrier.

Clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by

Dahlander (U.S. Patent No. 2,036,123).

As to claim 1, Dahlander discloses a method of implementing a barrier (3) to fluid flow in at least one direction, said barrier (3) embedded within porous material (concrete 1 and flooring 2 - see page 1, second column, wherein the flooring is anyone of "wood, rubber, linoleum, cork or the like" which are all considered to be porous materials) incorporating a porous topmost section (2) emplaced on top of said barrier (3), said topmost section (2) being of the same class of porous material as the porous material (1) immediately below said barrier (3), said topmost section (2) having a topmost surface suitable for use by wheeled traffic, comprising:

applying at least one layer of adhesive material (4), said at least one layer of said adhesive material (4) to include a topmost layer of said adhesive material (4), to an

Art Unit: 3673

entire first surface of said porous material (1), said applying done to said first surface prior to emplacing said topmost section (2);

placing multiple panels (sheet metal strips 10, 10,...) incorporating at least one layer of non-porous material (metal - see page 1, second column, lines 14-26) upon said topmost layer of said adhesive material (4),

overlapping edges of said panels (10, 10,...) with edges of any said panels (10, 10,...) placed adjacent thereto (see Figs. 2, 4, and 5), wherein said panels (10, 10,...) completely cover said topmost layer of said adhesive material (4);

sealing all said overlapped edges (see either Fig. 4 and page 2, first column, lines 7-21 or Fig. 5 and page 2, first column, lines 22-31) ; and

emplacing at least one layer of material (2) comprising said topmost section (2) upon said panels (10, 10,...) such that said panels (10, 10,...) are confined below said topmost section (2) and above said topmost layer of said adhesive material (4),

wherein the step of emplacing said panels (10, 10,...), the step of sealing said overlapped edges of said panels (10, 10,...), and the step of emplacing said topmost section (2) completes implementation of said barrier (3).

The examiner notes that the recitation said barrier is "embedded within porous material incorporating a porous topmost section emplaced on top of said barrier, said topmost section being of the same class of porous material as the porous material immediately below said barrier" is deemed to be met by Dahlander since it is not clear what is meant by "same class of porous material" (see 35 U.S.C. § 112, second paragraph rejection above). Therefore, the examiner deems the porous concrete

Art Unit: 3673

bottom layer (1) to be within the same class of porous material as the porous wood, rubber, linoleum, cork or the like material of the topmost layer (2).

The examiner notes that the recitation of the topmost section having a topmost surface "suitable for use by wheeled traffic" is a statement of intended use and as such the reference only need be capable of performing such intended use. In the present case, "wheeled traffic" could be anything such as a bike or a baby buggy and therefore, it is the examiner's position that Dahlander is capable of performing the intended use.

As to claim 2, Dahlander discloses the method of claim 1 as discussed above, and Dahlander also discloses that said barrier (3) employs non-porous material (sheet metal, preferably copper) being any one selected from a group consisting of: a metal, a metal alloy, a steel alloy, a stainless steel, a composite material, a composite material containing at least some metal, and combinations thereof.

As to claim 3, Dahlander discloses the method of claim 1 as discussed above, and Dahlander also discloses that said barrier (3) employs non-porous material (sheet metal, preferably copper) comprising at least in part a first metal.

As to claim 4, Dahlander discloses the method of claim 1 as discussed above, and Dahlander also discloses that the porous material (concrete 1 and wood, rubber, linoleum, cork or the like 2) that encloses said barrier (3) comprising at least in part concrete.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlander (U.S. Patent No. 2,036,123) in view of Bean et al. (U.S. Patent No. 6,286,279).

As to claim 5, Dahlander discloses the method of claim 4 as discussed above.

Dahlander fails to explicitly disclose that the step of employing said adhesive material comprises at least in part a thin set mortar deposited at a thickness of about 6 mm (0.25 inch).

Bean et al. teaches the use of an adhesive layer (18) of a Portland cement-based adhesive to bond a steel foil (12) to concrete (C). Bean et al. does not explicitly disclose that the adhesive layer is about 6 mm (0.24 inch).

However, it is well settled that changes in size and/or proportion between the invention and the prior art do not constitute a patentable difference. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling

Art Unit: 3673

up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.). Further, *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made of modify the method of implementing a barrier to fluid flow of Dahlander by replacing the adhesive (waterproof adhesive, such as asphalt layer 4 - see page 1, second column, lines 28-29) of Dahlander with the Portland cement-based adhesive as taught by Bean et al. in order to form a bond between the concrete and metal that does not degrade in the presence of moisture and alkalinity, and to make the adhesive layer 6 mm (0.25 inches) thick would have constituted a further obvious expedient to one having ordinary skill in the art at the time the invention was made since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7 1982).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlander (U.S. Patent No. 2,036,123) in view of Burgess (U.S. Patent No. 1,986,999).

As to claim 6, Dahlander discloses the method of claim 1 as discussed above.

Dahlander fails to explicitly disclose that the step of applying said topmost section is comprised at least in part of concrete at a thickness of about at least 2.5 cm (1.0 inch).

Burgess teaches a flooring structure in which corrugated metal plates (11) are overlapped (see at 15, 16 in Fig. 1) and a concrete layer (20) is then emplaced to form the floor surface. Burgess fails to explicitly disclose that the concrete layer is at least 2.5 cm (1.0 inch) thick.

However, it is well settled that changes in size and/or proportion between the invention and the prior art do not constitute a patentable difference. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.). Further, *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal

Art Unit: 3673

Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made of modify the method of implementing a barrier to fluid flow of Dahlander by replacing the flooring material of Dahlander with a concrete layer as taught by Burgess in order to provide a sturdier wear surface, and to make the concrete layer 2.5 cm (1.0 inch) thick would have constituted a further obvious expedient to one having ordinary skill in the art at the time the invention was made since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7 1982)).

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlander (U.S. Patent No. 2,036,123) in view of Schirmer (U.S. Patent No. 4,155,209).

As to claim 7, Dahlander discloses the method of claim 1 as discussed above.

Dahlander fails to explicitly disclose that the step of sealing said overlapped edges is done at least in part by applying a continuous bead of at least one sealant along the entire length between each said overlapped edge, wherein said sealant remains flexible upon curing.

Schirmer discloses a fluid-sealed sheet metal joint wherein the step of sealing said overlapped edges is done at least in part by applying a continuous bead of at least one sealant along the entire length between each said overlapped edge, wherein said sealant remains flexible upon curing (see col. 3, lines 18-49).

It would have been obvious to one of ordinary skill in the art at the time the invention was made of modify the method of implementing a barrier to fluid flow of Dahlander by replacing the sealant (sealing wire 11 or sealing ribbon 14) of Dahlander with the flexible room temperature vulcanizing (RTV) sealant taught by Schirmer in order to provide a waterproof joint that will remain so even after being subjected to numerous freeze and thaw cycles (see col. 1, lines 16-25).

As to claim 8, Dahlander in view of Schirmer discloses the method of claim 7 as discussed above, and Schirmer also discloses that a room temperature vulcanizing (RTV) sealant (see col. 3, lines 18-49) is employed as said at least one sealant.

Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlander (U.S. Patent No. 2,036,123).

As to claim 9, Dahlander discloses the method of claim 1 as discussed above, and Dahlander also discloses that the step of providing said panels as at least one plate.

Dahlander fails to explicitly disclose that the at least one plate has a total thickness less than about 6 mm (0.25 inch).

However, it is well settled that changes in size and/or proportion between the invention and the prior art do not constitute a patentable difference. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.). Further, *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, to make the at least one plate have a total thickness less than about 6 mm (0.25 inch) would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7 1982).

As to claim 12, Dahlander discloses the method of claim 1 as discussed above, and Dahlander also discloses that the step of providing the panels as at least one foil.

However, Dahlander fails to explicitly disclose that the least one foil has a thickness less than about 1 mm (40 mil).

However, it is well settled that changes in size and/or proportion between the invention and the prior art do not constitute a patentable difference. See *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.). Further, *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Therefore, to make the at least one plate be a foil (i.e., very thin sheet metal) having a total thickness less than about 1 mm (40 mils) would have constituted an obvious expedient to one having ordinary skill in the art at the time the invention was made since it is well founded that merely changing dimensions is not unobvious (see *Brunswick Corporation v. Champion Spark Plug Company*, 216 USPQ 1 (CA 7 1982).

Response to Arguments

Applicant's arguments filed 12 January 2006 have been fully considered but they are not persuasive.

With respect to the 35 U.S.C. § 102(b) rejection of claims 1-4, Applicants' argue that Dahlander does not disclose that his barrier is enclosed by material of the same class above and below the barrier. The examiner disagrees because Dahlander discloses a barrier (metal sheet layer 3) having a porous concrete layer (1) below it and a porous material layer (flooring 2 comprised of wood, rubber, linoleum, cork or the like) above it. Nowhere in Applicants' specification does it define what is meant by "same class" of porous material. Further, one of ordinary skill in the art would not understand what is meant by "same class" of porous material because porous materials could be of the "same class" for different reasons. For instance, porous material could be classed together on the basis of porosity and this class of porous materials would be different from porous materials that were classed together based upon some other property. Without a definition of what is meant by "same class" of porous material (i.e., based upon what property), this limitation is vague, indefinite, and confusing so that the structure disclosed by the Dahlander reference is deemed to meet this limitation.

With respect to the 35 U.S.C. § 103(a) rejections involving Dahlander in view of Bean et al., Dahlander in view of Burgess, Dahlander in view of Schirmer, and Dahlander alone, Applicants have alleged that the "Examiner has provided no evidence on motivation to combine any of the cited patents with Dahlander." The examiner disagrees as she has explicitly stated a motivation to combine the secondary reference

with Dahlander for each of the 35 U.S.C. § 103(a) rejections. Since Applicants have not pointed out any specific reasons why the motivations to combine as stated in the 35 U.S.C. § 103(a) rejections are not legitimate, the examiner will not comment further and maintains her 35 U.S.C. § 103(a) rejections.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Thursday, 8:30 am to 7:00 pm.

Art Unit: 3673

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on (571)-272-6660. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

^{GAS}
Gay Ann Spahn, Patent Examiner
March 8, 2006


PATRICIA L. ENGLE
PRIMARY EXAMINER
Art unit 3673